

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/JP2005/008319

International filing date (day/month/year)
25.04.2005

Priority date (day/month/year)
28.04.2004

International Patent Classification (IPC) or both national classification and IPC
G11B27/00, H04N5/783, H04N9/804

Applicant
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2005/008319

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2005/008319

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	7
	No: Claims	1-6, 8-31
Inventive step (IS)	Yes: Claims	7
	No: Claims	1-6, 8-31
Industrial applicability (IA)	Yes: Claims	1-31
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

and / or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/JP2005/008319

Re Item V.

AP2005031918 JUL 2006

1 Reference is made to the following documents:

- D1 : EP 0 756 281 A (SONY CORPORATION) 29 January 1997 (1997-01-29)
D2 : WO 2004/066635 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) 5
August 2004 (2004-08-05)
D3: US 2005/0147375 A1 (Shinya Kadono) 7 July 2005 (2005-07-07)

2 INDEPENDENT CLAIMS 1, 14, 16-24, 27-31

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 14, 16-24, 27-31 is not new in the sense of Article 33(2) PCT.

2.1 Claim 1:

Document D1 discloses (the references in parentheses applying to this document):

a moving picture stream generation apparatus (the recording apparatus disclosed in D1 generates an MPEG-2 moving picture stream) for generating a stream including pictures that constitute a moving picture, said apparatus comprising:

a supplemental information generation unit operable to generate, on a random access unit basis (understood here as: for each GOP, group of pictures), supplemental information (see column 17, lines 17-20) to be referred to at the time of playback of each random access unit, each random access unit including one or more pictures;

a stream generation unit operable to generate a stream including the generated supplemental information and the pictures by adding the supplemental information to each corresponding random access unit,

wherein, at a top of each random access unit, an intra coded picture that can be decoded without depending on any picture is placed (according to the

MPEG-2 standard, an I picture is placed at the top of a group of pictures, see Fig.14B), and

the supplemental information includes information for specifying pictures to be decoded at the time when the pictures included in each random access unit are played back in trick-play (the fact of specifying the type of a picture (I, P or B) or the position of the header of a GOP, for example, falls within this wording; see, for example col.14 l.11-25 or col.19 l.45-55).

2.2 Claims 16-24, 27-31:

Claims 16-24 or 27-31 are apparatus or method claims corresponding to claim 1 and are not novel the same reasons.

2.3 Claim 14:

D1 discloses a moving stream generation apparatus for generating a stream including pictures that constitute a moving picture, said apparatus comprising a sequence parameter set addition unit operable to generate a moving picture stream including sequence parameter sets by adding the sequence parameter sets, on a random access unit basis (a GOP), each of the sequence parameter sets being a group of parameters concerning one or more pictures (see col.14 l.11-25),

wherein the sequence (in this case a group of pictures, GOP) is made up of pictures that start with a special picture at which all statuses needed for decoding are reset (an I picture is such a picture) and ends with a picture that is placed immediately before a next special picture (since a GOP starts with an I picture, see Fig.14B).

3 DEPENDENT CLAIMS 2-6, 15, 25, 26

Dependent claims 2-6, 15, 25, 26 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

4 DEPENDENT CLAIM 7

The combination of the features of dependent claim 7 is neither known from, nor rendered obvious by, the available prior art.

The problem solved by these features is to allow the recording apparatus to determine which AUs (access units) to be decoded when performing a trick mode playback, in particular in the case of an MPEG-4 AVC stream with very flexible prediction structures.

In D1 and the available prior art, this is done by providing information relative to the position and type of the frames. The order in which the frames are decoded is decided at the decoding stage by the decoder. The solution of claim 7, i.e. to incorporate in the supplemental information pieces of information indicating the type of the pictures and to place these pieces of information in an order corresponding to a decoding order of the pictures when they are played back in trick mode, is not suggested by the available prior art. It has the advantage of simplifying and speeding up the decoding operation.

Re Item VI

D2 is an interfering document which also takes away the novelty of claim 7 (see paragraphs [0076] and [0077] of D3, the corresponding US application).